



## Focus and *wh*-Questions in Mongolian\*

Edgar Onea

*University of Göttingen*

edgar.onea@zentr.uni-goettingen.de

Dolgor Guntsetseg

*University of Stuttgart*

dolgor.guntsetseg@ling.uni-stuttgart.de

**Abstract.** In this paper we propose an event-anaphor based analysis of Mongolian focus constructions and *wh*-questions. Mongolian has two types of corresponding *wh*-question-answer paradigms involving either *in situ* or *ex situ* foci and *wh*-words. The apparent difference between these constructions involves exhaustiveness on the focus-side and presuppositionality on the question-side. The analysis, however, reveals that both contrasts amount to the presence or absence of an anaphoric event argument. We provide a large set of data that confirm the predictions of the analysis.

### 1 Introduction

In Khalkha-Mongolian (the main Mongolian dialect) two types of *wh*-questions can be distinguished with regard to both syntactic properties and interpretation. We call the first type of question *in situ* and the second type *ex situ*. *In situ* questions as (1) are such that the *wh*-word appears at its base generated position (or at the first merge position in minimalist parlance) whereas in *ex situ* questions, as in (2) the *wh*-word appears at some higher syntactic position, which we assume to be a kind of focus position. The most striking correlating semantic properties are that, in a sense, *ex situ* questions are strongly presuppositional, whereas *in situ* questions are not: One can answer an *in situ* question negatively, e.g. with *nobody*, as shown in (1a), whereas for an *ex situ* question, such an answer is marked (even infelicitous at times), as shown in (2a).<sup>1</sup>

- (1) Tuya hen-tei gerle-j bai-san be?

*Tuya who-COM marry-CVB be-PST Q*

‘Whom did Tuya marry?’

- a. Tuya hen-tei ch gerle-j bai-gaa-güi.

*Tuya who-COM FOC marry-CVB be-NPST-NEG*

\* This research has been supported by the German Initiative of Excellence (Göttingen) and the Project C2 “Case and Referential Context: Argument Realization and Referential Context” as part of the SFB 732 “Incremental Specification in Context” funded by the German Science Foundation (DFG) at the University of Stuttgart. In addition, we wish to thank Andreas Haida, Klaus von Heusinger, Hans Kamp and Malte Zimmermann for comments and suggestions, and Ingo Reich for organising the Sinn und Bedeutung conference and editing this volume.

<sup>1</sup> We explicitly mark focushood only if an example appears without the corresponding *wh*-question.

‘Tuya married nobody.’

- (2) Hen-tei Tuya gerle-j bai-san be?  
*who-COM Tuya marry-CVB be-PST Q*  
 ‘Whom did Tuya marry?’
- a. #Hen-tei ch Tuya gerle-j bai-gaa-güi.  
*who-COM FOC Tuya marry-CVB be-NPST-NEG*  
 ‘Tuya married nobody.’ (The speaker doesn’t want to tell who  
 Tuya married)

In addition, there is a correlation between the syntactic position of the answering constituent and the syntactic position of the *wh*-word, as can be seen on the position of *hentei ch* in the answers above. The arising empirical generalization is then, that *ex situ* foci as answers to *ex situ* questions are necessarily exhaustive whereas *in situ* foci may or may not be exhaustive. Examples are to come.

In this paper we develop an analysis of the observed phenomena, widely following ideas from Onea (2010) for Hungarian focus, along the following lines: We assume that *ex situ* questions are about a particular event and so are the *ex situ* answers. The apparent stronger presuppositionality of *ex situ* questions is then nothing but a result of the fact that events must have participants (otherwise they don’t exist), and the exhaustiveness arises in many but not all cases from the fact that some expressions totally specify the participants of an event.

## 2 Generalizations

Mongolian is an SOV language with postpositions, pronominal modifiers, a complex differential case marking system Guntsetseg (2009, 2010b) and word order constrained by grammatical roles and information structure (cf. Poppe 1951). Foci in Mongolian receive prosodic prominence and may or may not be moved from their base position. Our first impression is that a B-accent distinguishes contrastive topics from foci, which receive A-accents *sensu* (Bolinger 1972). Similarly, topics may or may not be moved.

It is not always trivial to distinguish *in situ* and *ex situ* questions (or foci). This is because not only focus gives rise to syntactic movement, and, hence, moved foci may surface as if they were *in situ* and vice versa. Given that the information structurally unmarked overt structure of the Mongolian sentence is the one in (3a), exemplified in (3), we can only safely conclude that a focus or a *wh*-word is *ex situ* whenever it precedes some expression that in the unmarked case would surface at its left.

- (3)    Öchigdör Peter Mari-g    shunaltai    üns-sen.  
       *yesterday Peter Mary-ACC passionately kiss-PST*  
       ‘Yesterday, Peter kissed Mary passionately.’

a.    clausal adverbs > subject > object > verbal adverbs > verb

We remain silent on the hierarchical structure of Mongolian sentences in this paper. To avoid syntactic complications we limit the analysis to simple transitive sentences. We only use *wh*-questions about the object. We assume that whenever the *wh*-word is in front of the subject, as in (4a) we have an *ex situ* focus, and also we assume that whenever the *wh*-word is after the subject, as in (4b) it may be interpreted in situ (but needn’t be).

- (4)    a.    Hen-ig    / MARI-g    Peter üns-sen (be)?  
       *who-ACC / Mary-ACC Peter kiss-PST Q*  
       ‘Whom did Peter kiss? Peter kissed Mary.’  
       b.    Peter hen-ig    / MARI-g    üns-sen (be)?  
       *Peter who-ACC / Mary-ACC kiss-PST Q*  
       ‘Whom did Peter kiss? Peter kissed Mary.’

Given these assumptions, we have the following observed facts to model: i) *ex situ* questions are more presuppositional, and ii) *ex situ* answers are exhaustive.

### 3 Questions

As a general framework for questions we assume a Hamblin-Rooth type of semantics in which questions are modelled as sets of possible answers, cf. e.g. Rooth (1992) and Beaver & Clark (2008) as a recent variant.

We assume that *wh*-questions of the type given in (5) may have two distinct representations given in (5a) and (5b). (5a) says that the semantic value of a question consists of all possible answers with an existentially closed event variable and (5b) says that the semantic value of a question consists of all possible answers with a presupposed event variable. In the second case we say that the question is a *about* a particular event.

- (5)    Who P?  
       a.     $\{(\exists e)(P(e, x)) | x \in D\}$   
       b.     $\{P(\iota e((\exists y)(P(e, y) \wedge e \in C \wedge MAX(e)))) , x) | x \in D\}$

Note, of course, that if the event under discussion is maximal and contextually unconstrained, the two representations are completely equivalent, however, of course, in the lack of a context, (5b) suffers presupposition failure. We assume that *ex situ* questions have the semantic representation in (5b) whereas *in situ*

questions have the semantic representation in (5a).

We now illustrate: In (6) the *ex situ* question is not felicitous, as the context does not satisfy the presupposition. In (7) the question with *ex situ wh*-word is acceptable and clearly refers to the event under discussion that the speaker has just reported. In (8) the question is felicitous and since the context maximizes the event under discussion to Peter's entire life, the interpretation is as given in the example, just as explained above.

- (6) Context:  $\emptyset$   
 a. #Hen-ig Peter üns-sen be?  
*who-ACC Peter kiss-PST Q*  
 'Whom did Peter kiss?'
- (7) Context: I just saw that Peter kissed a girl, but I didn't recognize her.  
 a. Hen-ig Peter üns-sen be?  
*who-ACC Peter kiss-PST Q*  
 'Whom did Peter kiss in the event you saw?'
- (8) Context: I'm sure, Peter kissed some girl or another in his life.  
 a. Hen-ig Peter üns-sen be?  
*who-ACC Peter kiss-PST Q*  
 'Whom did Peter ever kiss?'

Evidence that *in situ* questions do not target the event under discussion is a bit more involved, as we must make sure that the construction contains *in situ* foci. Assuming that simple unstressed personal pronouns in Mongolian are inappropriate sentence topics but full DPs, especially with demonstrative articles, are, the contrast in (9) is enlightening. Note that (9b) is otherwise grammatical and fully acceptable as a general question with no salient event.

- (9) Context: I just saw that a woman kissed someone, but I didn't recognize the kissee.  
 a. Ter hüühen hen-ig üns-sen be?  
*the woman who-ACC kiss-PST Q*  
 'Whom did the woman kiss in the event you saw?'
- b. #Ter hen-ig üns-sen be?  
*she who-ACC kiss-PST Q*  
 'Whom did she kiss in the event you saw?'

An interesting question is what happens in the case of contrastive topics, which in Mongolian appear in front of the focused expression (or question word). Superficially, one may expect that contrastive topics may not appear with *ex*

situ foci, for – as argued in Büring (2003) – contrastive topics would signal the existence of a super-question: e.g. for (10) this would be a *who-kissed-whom?* type of question, leading to the non-existence of a unique kissing event. However, even though Peter is a contrastive topic in (10), it is clearly part of the background. Hence, the event that has to be accommodated involves Peter kissing someone, and not just any kissing event. This correctly predicts that ex situ questions may cooccur with contrastive topics, as shown in (11) (Note that the question word appears left to the subject in (11), hence necessarily being ex situ).

- (10) Peter<sub>CT</sub> hen-ig üns-sen be?  
*Peter who-ACC kiss-PST Q*  
 ‘As for Peter, whom did he kiss?’
- (11) Mari-g<sub>CT</sub> hen-d Peter tanilzuul-san be?  
*Mary-ACC who-DAT Peter introduce-PST Q*  
 ‘As for Mary, to whom did Peter introduce her?’

Let us now see how we can compositionally derive the difference between the ex situ and in situ questions. We assume the existence of a particular syntactic position which, similar to Hungarian (cf. Onea 2010), is responsible for the event-presupposition and syntactically requires a [+Foc] feature on its specifier, such that only *wh*-words (bearing focus according to Haida (2007)<sup>2</sup>) and foci may appear in its specifier. We assume that the semantics of the E head is the one given in (12). We dub this position EP. Note that the first argument is the question word, and the second the background. The formula assumes that question words are quantifiers, but of course, question words are, strictly speaking, sets of individuals (treated as generalized quantifiers) in order to derive the ordinary meaning of questions as sets of propositions. We leave this part to the reader, however.

$$(12) \quad \lambda\phi.\lambda\psi.\psi(\lambda x.\phi(x)(\text{ie}.e \in C \wedge \text{MAX}(e) \wedge \exists y_{e \in D_e}.\phi(y)(e)))$$

## 4 Foci

Answers to *wh*-questions contain narrow foci such that the narrowly focused constituent matches the *wh*-word in the question. We assume Alternative Semantics (Rooth (1992); Beaver & Clark (2008)) as a general semantic framework for focus interpretation. In particular: Foci trigger a presupposition over sets of alternative propositions which have to match the ordinary semantic value of some question in the context by  $\subseteq$  relation.

<sup>2</sup> We do not follow his semantic analysis of *wh*-words, however.

In Mongolian, foci appear at the same syntactic position at which the question they answer would appear. Syntactically, we model this by assuming that *ex situ* foci are moved to EP whenever EP enters the numeration. The reason is that the [+Foc] feature on the answer must be checked.

Semantically, the effect of the EP is, again, the introduction of the event presupposition, and for (13), we get the result in (14). (14) says that in the contextually unique event of Peter kissing someone, he kissed Mary.

- (13) MARI-g Peter üns-sen.  
*Mary-ACC Peter kiss-PST*  
 ‘Peter kissed Mary.’

- (14) a. ordinary meaning:  
 $kiss(te.e \in C \wedge MAX(e) \wedge \exists y \in D_e. kiss(e, P, y), P, M)$   
 b. presupposed set:  
 $\{kiss(te.e \in C \wedge MAX(e) \wedge \exists y \in D_e. kiss(e, P, y), P, z) | z \in D_e\}$

It should be obvious now, that for (13) we have just derived the exhaustiveness inference, as it is not possible for an event to have two distinct participants on the same argument role, even if one contains the other. So, if for *e* the patient argument is Mary, the event *e*’ which contains *e* and has Mary and Jane as a patient argument, must be distinct from *e*.

The exhaustification works, however, only accidentally, since it is a property of proper names as generalized quantifiers to maximally cover their restrictor set. For typical monotone increasing quantifiers such as *three women* exhaustification is not expected to arise as the derived meaning ultimately only says that in the event under discussion the cardinality of the set of individuals who are both women and have been kissed by Peter is at least three. Any further exhaustification must be purely pragmatic. This prediction is born out as shown in (15). Note that the lack of contrast between (15b) and (15d) is fully predicted as in these cases the arguments are treated as a sum individual.

- (15) a. Gurvan ohin-ig Peter üns-sen. Bas neg hövgüün-ig.  
*three girl-ACC Peter kiss-PST also a boy-ACC*  
 ‘Peter has kissed three girls. And a boy.’  
 b. Gurvan ohin(-ig) bolon bas neg hövgüün-ig Peter üns-sen.  
*three girl-ACC and also a boy-ACC Peter kiss-PST*  
 ‘Peter has kissed three girls and a boy.’  
 c. #Mari-g Peter üns-sen. Bas neg hövgüün-ig.  
*Mary-ACC Peter kiss-PST Also a boy-ACC*  
 ‘Peter has kissed Mary. And a boy.’

- d. Mari(-g) bolon bas neg hövgüün-ig Peter üns-sen.  
*Mary-ACC and also a boy-ACC Peter kiss-PST*  
 ‘Peter has kissed Mary and a boy.’

There is an additional test for the contrast between the exhaustification in case of proper names and other upward monotonic quantifiers, such as *three girls*. Consider the question in (16). Now an answer like (16a) is correctly predicted to be completely out in our theory, since this would mean that Peter didn’t kiss Mary. An answer like (16b) is, on the other hand, not predicted to be infelicitous, since Peter kissing three girls is not supposed to be exhaustive. For one thing, of course, in principle (16b) could mean that Peter kissed a totality of three girls, however this is a marginal interpretation in Mongolian. If native speakers are confronted with the dialogue: (16)-(16b) they would say that Peter kissed a totality of four girls. The fact that (16b) is marked with a question mark rather comes from a more optimal candidate which native speakers would prefer: (16c) and (16d) which would include a special marker that we are speaking about additional girls.

- (16) Mari-gaas öör hen-ig Peter üns-sen be?  
*Mari-ABL different who-ACC Peter kiss Q*  
 ‘Except Mary, who did Peter kiss?’
- a. #Tuya-g Peter üns-sen.  
*Tuya-ACC Peter kiss-PST*  
 ‘Peter kissed Tuya’
- b. ?Gurvan ohin-ig Peter üns-sen.  
*three girl-ACC Peter kiss-PST*  
 ‘Peter has kissed three girls.’
- c. Öshöö Tuya-g Peter ünssen.  
*more Tuya-ACC Peter kiss-PST*  
 ‘Peter kissed also Tuya.’
- d. Öshöö gurvan ohin-ig Peter üns-sen.  
*more three girl-ACC Peter kiss-PST*  
 ‘Peter kissed also three girls.’

Note that this contrast is particularly strong, as not every Mongolian speaker would have problems with (16b) at all, whereas (16a) is completely out.

We do not discuss downward entailing or non monotonic quantifiers here in detail as their treatment in event semantics is fairly complicated, but note that similar to Hungarian, cf. Onea (2010), they never occur as in situ foci, as shown in (17). The reason for this is that simply existentially quantifying over an event variable will not get the correct truth conditions (Krifka 1989),

moving such quantifiers into the EP position, however, correctly predicts that they apply to one particular maximal event. If needed, of course, that event can be extended without any limit.

- (17) a. Yag   gurban ohin-ig   Peter üns-sen.  
          *exactly three   girl-ACC Peter kiss-PST*  
          ‘Peter has kissed exactly three girls.’  
       b. #Peter yag   gurban ohin-ig   üns-sen.  
          *Peter exactly three   girl-ACC kiss-PST*  
          ‘Peter has kissed exactly three girls.’

Note that if explicit negation applies, any kind of foci may appear in situ. This is different in Hungarian. The reason for this seems to be that Hungarian has an explicit syntactic projection which contributes the existential closure of the event, whereas this is more flexible in Mongolian as far as we can judge at the current stage of our research.

## 5 Predictions

The system proposed in this paper has a number of surprising predictions, which are (fortunately) borne out:

For one thing, adjuncts that do not individuate events, such as explanations, will never be exhaustified even if they come as *ex situ* foci. This is because an event may have several reasons and therefore naming one reason or explanation for an event will not trigger any special individuating information about that event. Therefore, in the answer to a *why*-question there is no difference with regard to exhaustiveness between *in situ* and *ex situ* foci, as shown in (19) vs. (21), however, there is still a very clear difference in the interpretation of the questions. (18) must target a particular journey which most probably was discussed in the context, whereas (20) is a general question.

- (18) Yagaad chi Mongol   ruu yav-san be?  
       *why   you Mongolia to   go-PST Q*  
       ‘Why did you go to Mongolia (on a particular salient occasion)?’  
       (19) Minii eej   övd-sön bai-san uchraas bi Mongol   yav-san. Bas  
           *my   mother be\_sick be-PST because I Mongolia go-PST also*  
           minii egch gerle-h   gej bai-san uchraas.  
           *my   sister marry-INF that be-PST because*  
           ‘I went to Mongolia, because my mother was sick. And because my  
           sister was getting married.’



- (20) Chi Mongol ruu yagaad yav-san be?  
*you Mongolia to why go-PST Q*  
 'Why did you go to Mongolia (some day)?'
- (21) Bi eej övd-sön bai-san uchraas Mongol yav-san. Bas  
*I mother be\_sick-PST be-PST because Mongolia go-PST also*  
*egch gerle-h gej bai-san uchraas.*  
*sister marry-INF that be-PST because*  
 'I went to Mongolia, because my mother was sick. And because my  
 sister was getting married.'

In Mongolian the system proposed above predicts that for stative verbs *ex situ* foci will have difficulties finding the contextually salient event the question or answer should be about.

Some states can be very well individuated in time, in fact, probably they can be even thought of as events. Such is the case for *having a headache*, *being angry with John*. This is fairly difficult for more extended events such as *having a car*, *loving John*, *dismissing John*. If so, we may expect that in Mongolian only for the first type of states *ex situ* questions are available, for they do have well-individuated possible discourse antecedents. Yet this prediction is apparently wrong, since both (22) and (23) are perfectly acceptable.

- (22) Hen-d Peter uurla-san be?  
*who-DAT Peter be\_angry-PST Q*  
 'With whom is Peter angry?'
- (23) Hen-ig Peter üzen\_jad-dag ve?  
*who-ACC Peter hate-HAB Q*  
 'Whom does Peter dislike?'

A closer look shows that there is a difference between these cases: for (23) we need a context in which someone has informed us that Peter dislikes someone. The interpretation of the sentence is identical with (24). Indeed, an answer to (23) is not interpreted as an exhaustive list of people who Peter dislikes but rather as an exhaustive list of people that have been mentioned to be disliked by Peter in the context.

- (24) Hen-ig Peter üzen\_jad-dag gej John hel-sen be?  
*who-ACC Peter hate-HAB that John say-PST Q*  
 'Whom did John say that Peter dislikes?'

This means that in cases in which an event or a particular temporally well individuated state (which can be under discussion) cannot be reconstructed (or is

hard to reconstruct) from an utterance, an external event (of uttering/ speaking/ informing) will be used as a target event: instead of getting a salient event of Peter disprising someone, we get a salient event of saying that Peter disprises someone. We ignore the syntactic details.

It depends on the question semantics employed whether or not questions will need to have existential presuppositions or not. This issue is not totally settled, but we are inclined to follow Haida (2007) in saying that questions do have an existential presupposition. If this is correct, the fact that *nobody* is a good answer in a dialogue as in (25) needs an explanation. We follow Haida (2007) in the assumption that negations can be used to protest against a presupposition, and hence, the acceptability of (25) in English is not a valid argument against the presuppositionality of *wh*-questions.

- (25) A: Who do you love?  
B: Nobody.

But then the question arises why Mongolian behaves differently. So, why is it that when (2a) is used to answer (2) in Mongolian, native speakers get the impression that the person uttering (2a) is lying, i.e. he does not want to divulge the secret, who Tuya married? First, this cannot be because an existential presupposition is imposed by the question, as (2a) could simply contradict that presupposition. Moreover, it can be shown that even in situ questions do have an existential presupposition. So, for instance, (26), if uttered by a judge or a lawyer in court would still be rejected as presuppositional by the defence if kissing were a crime.

- (26) Ter hen-ig üns-sen be?  
*she who-ACC kiss-PST Q*  
'Whom did she kiss?'

The explanation for the markedness of *nobody*-type answers for ex situ questions is explained by the anaphoricity of the event which the question is about. Since such an event must exist, no participant of that event can be *nobody*. So, clearly, if in the answer one says that the participant under question is *nobody*, we get a contradiction that will be pragmatically interpreted as a non-willingness to divulge a secret. The contradiction is sentence internal, however, and not between the presupposition of the question and the answer, since in the answer itself an event presupposition is triggered by the ex situ position of the answer focus. If, however, one chooses to answer with *nobody* to such a presuppositional question in situ (remember that *nobody* can be in situ despite the downward entailing properties, since it is accompanied by verbal negation)

only a contradiction between the presupposition of the question and the answer arises. This is still not quite the situation in English, however, since in Mongolian even in this case the presupposition of the question is stronger (event related) than the one in English (which is merely existential), so we expect in Mongolian a presupposition failure marker to be used. Exactly this happens in practice as shown in (27).

- (27) a. Ter hen-ig üns-sen be?  
*she who-ACC kiss-PST Q*  
 'Whom did she kiss?'  
 b. Ter hen-ig ch üns-ee-güi shdee  
*She who-ACC FOC kiss-NPST-NEG actually*  
 'Actually, she kissed nobody.'

The same effect can be reproduced in English, as shown in (28). Note that if we omitted the embedding under *John said*, we would get a plain contradiction between A's utterances.

- (28) A: John said that Peter kissed a girl in the coffee break.  
 B: Who did he kiss?  
 a. A: ? He kissed nobody.  
 b. A: Actually, he kissed nobody.

Haida (2007) argues that the un informativity of a pure existential as an answer to a *wh*-question is a better test for presuppositionality as shown in (29).

- (29) A: Who did you kiss?  
 B: ? Somebody.

The lack of any contrast between (30) and (31) in this respect shows that indeed, both types of questions in Mongolian are presuppositional, even if only one of them is about a particular event.

- (30) a. Peter hen-ig üns-sen be?  
*Peter who-ACC kiss-PST Q*  
 'Who did Peter kiss?'  
 b. ?Peter hen\_negn-ig üns-sen.  
*Peter someone-ACC kiss-PST*  
 'Peter kissed somebody.'  
 (31) a. Hen-ig Peter üns-sen be?  
*who-ACC Peter kiss-PST Q*  
 'Who did Peter kiss?'

- b. ?Hen-negn-ig Peter üns-sen.  
      *someone-ACC Peter kiss-PST*  
      ‘Peter kissed somebody.’

## 6 Outlook: Comparison to Hungarian

In this paper we have developed a sketchy analysis for two interesting facts about Mongolian questions and foci: For one thing Mongolian has two types of questions, namely in situ and ex situ questions, and also two types of typical answers containing narrow foci that can appear ex situ or in situ and which, for the most part, strictly correlate with the type of the question. We modelled this correlation and the arising semantic facts: presuppositionality differences in the question and exhaustiveness differences in the answers.

The correlation as such is partly purely syntactic: We have assumed a particular EP projection which attracts focused elements, and since we assume that question words have a [+Foc] feature, it follows that question words and narrow foci share the syntactic position in Mongolian whenever EP enters the numeration. In addition, we have assumed that the E head transforms the event argument of the clause into a presupposed maximal event, i.e. a contextually unique event of the type described in the background part. This explains the exhaustiveness of ex situ foci for proper names but not for most other quantifiers. Evidence has been given that this prediction is correct. The presuppositionality difference in the question is not related to the existential presupposition *wh*-questions generally have but rather the event-relatedness of the questions. Again, evidence to this extent has been given.

The question arises how Mongolian focus relates to Hungarian preverbal focus, which is the most prominent example of exhaustive focus in the literature, cf. Szabolcsi (1981); É. Kiss (1998), and, even more importantly, whether from Mongolian anything significant with regard to the general exhaustiveness debate follows. As a background, it must be noted that there are a number of competing analyses for Hungarian focus. For instance, it has been claimed that preverbal focus in Hungarian comes with an exhaustiveness operator similar to *only* (Szabolcsi 1981; É. Kiss 1998), that exhaustiveness in Hungarian is a matter of exhaustive identification (Szabolcsi 1994) or that Hungarian focus is only exhaustive in an event related manner (Onea 2007), or exhaustiveness could even be a pure pragmatic implicature (Wedgwood 2005).

The analysis proposed here is very similar to the event-based exhaustification analysis proposed in Onea (2007, 2010) for Hungarian. This similarity is not incidental, however. While in Hungarian there is only one type of *wh*-questions, Mongolian exhibits an analogon to focus-phenomena also in the

realm of *wh*-questions. It turns out that it is difficult or even impossible to apply any non-event-based analysis of Hungarian focus to the Mongolian questions, for it is, for instance, not at all obvious what it means for a question to be exhaustive. Consider, for instance, the oddity of (32) even in English, which straightly translates to Hungarian and Mongolian.

- (32) Only whom did Peter kiss?

Also, the event-based exhaustification approach has a number of predictions that are hard to achieve in the competing theories. For instance, the prediction that there is a strong exhaustiveness difference between arguments and adjuncts (i.e. *why*-questions) and also the difference between proper names and other quantifiers. While these predictions seem empirically unclear for Hungarian according to Onea (2010), we have provided strong evidence that in Mongolian they are all borne out.

In addition, one particular prediction of Onea (2010) is that *wh*-questions may come either with existentially bound event variables or with anaphoric event variables, which can be modelled with the *t* operator. Mongolian overtly distinguishes between these types of questions, if our analysis is on the right track. Contextual constraints on the possibility to use these types of questions suggest that the distinction is, indeed, real.

In a way, then, Mongolian suggests that focus exhaustiveness may generally be related to event-anaphors. A similar analysis, based on event anaphors, has been proposed by Hole (2011) for *shi...de clefts* in Chinese, and Grubic & Zimmermann (2011) for marked foci in Ngamo.

We conclude with a somewhat puzzling difference between Hungarian and Mongolian. While in Hungarian focused *all*-phrases cannot appear *ex situ*, that is to say, as immediate preverbal foci, in Mongolian, in some contexts, *all*-phrases can pop up as *ex situ* answers to *how-many*-questions, as shown in (33a) vs. (34a).

This fact seems to suggest that there are differences between Hungarian and Mongolian which have not been accounted for by the analyses of Onea (2010) and the present analysis. Whether this means that after all, it is only Mongolian and, crucially, not Hungarian to which the event-based analysis should apply or whether there is some independent explanation of this contrast, we leave for further research.

- (33) Heden      hün-ig      Peter üns-sen be?  
*How-many person-ACC Peter kiss-PST Q*  
 'How many persons did Peter kiss?'

- a. Būh hūn-ig Peter üns-sen.  
*all person-ACC Peter kiss-PST*  
 ‘Peter kissed all the persons.’
- (34) Hány lányt csókolt meg Péter?  
*How-many girls.ACC kissed PRT Peter*  
 ‘How many girls did Peter kiss?’ Hungarian
- a. \*Péter minden lányt csókolt meg.  
*Peter every/all girl.ACC kissed PRT*  
 ‘Peter kissed every girl.’

We do hint, however, at the fact that even in Mongolian, *every*-phrases cannot be ex situ foci, which again, is similar to Hungarian, as shown in (35a).

- (35) Heden hun-ig Peter üns-sen be?  
*How-many person-ACC Peter kiss-PST Q*  
 ‘How many persons did Peter kiss?’
- a. \*Hүн болгон-ig Peter üns-sen.  
*person every-ACC Peter kiss-PST*  
 ‘Peter kissed every person.’

So the solution of this asymmetry might come for free from a proper analysis of *būh* (‘all’)-phrases in Mongolian as compared to Hungarian. For instance, Guntsetseg (2010a) shows that as opposed to the single universal quantifier *minden* in Hungarian, and the three English quantifiers (*each*, *every*, *all*) Mongolian has four universal quantifiers which strongly differ in their semantic properties: *būh* (‘all’), *būhen* (‘generic every’), *bolgon* (‘distr. every’) and *bür* (‘each’).

## References

- Beaver, David & Brady Clark. 2008. *Sense and Sensitivity*. Oxford: Blackwell.
- Bolinger, D. 1972. Accent is predictable (if you are a mind reader). *Language* 43. 633–644.
- Büring, Daniel. 2003. On D-Trees, Beans, and B-Accents. *Linguistics & Philosophy* 26(5). 511–545.
- É. Kiss, Katalin. 1998. Identificational Focus versus Information Focus. *Language* 74(2). 245–273.
- Grubic, Mira & Malte Zimmermann. 2011. Conventional and free association with focus in Ngamo. In *Proceedings of sub15 Saarbrücken*, Saarbrücken.
- Guntsetseg, Dolgor. 2009. Differential Object Marking in (Khalkha-) Mongo-

- lian. In R. Shibagaki & R. Vermeulen (eds.), *Proceedings of the 5th Workshop on Altaic Formal Linguistics*, vol. 58 MIT Working Papers in Linguistics, 115–129. Cambridge MA.
- Guntsetseg, Dolgor. 2010a. Differential Case Marking in Mongolian. MS. University of Stuttgart.
- Guntsetseg, Dolgor. 2010b. The function of case in mongolian. In *Proceedings of the 6th workshop on altaic formal linguistics (wafl 6)* (MIT Working Papers in Linguistics (MITWPL) 61), 139–153. Cambridge MA.
- Haida, Andreas. 2007. *The indefiniteness and focusing of wh-words*. Berlin: Humboldt Universität zu Berlin, dissertation.
- Hole, Daniel. 2011. The deconstruction of Chinese shì...de clefts revisited. *Lingua* accepted.
- Krifka, Manfred. 1989. Nominal reference, temporal constitution and quantification in event semantics. In J. van Benthem, R. Bartsch & P. van Emde (eds.), *Semantics and Contextual Expression*, 75–115. Dordrecht: Floris.
- Onea, Edgar. 2007. Exhaustivity, Focus and Incorporation in Hungarian. In Maria Aloni, Paul Dekker & Floris Roelofsen (eds.), *Proceedings of the sixteenth amsterdam colloquium*, 169–174. Amsterdam: ILLC/Department of Philosophy University of Amsterdam.
- Onea, Edgar. 2010. Hungarian focus and event anaphors. MS. University of Göttingen.
- Poppe, N. 1951. *Khalkha-Mongolische Grammatik: mit Bibliographie, Sprachproben und Glossar*. Wiesbaden: Steiner.
- Rooth, Mats. 1992. A theory of focus interpretation. *Natural Language Semantics* (1). 75–116.
- Szabolcsi, Anna. 1981. Compositionality in Focus. *Acta Linguistica Societatis Linguisticae Europaeae* (15). 141–162.
- Szabolcsi, Anna. 1994. All quantifiers are not equal: the case of focus. *Acta Linguistica Hungarica* (42). 171–187.
- Wedgwood, Daniel. 2005. *Shifting the Focus: From Static Structures to the Dynamics of Interpretation* Current Research in the Semantics Pragmatics Interface. Oxford: Elsevier.